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| Titolo | Integrins in Health and Disease : Key Effectors of Cell-Matrix and Cell-Cell Interactions / / edited by Donald Gullberg, Johannes A. Eble |
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| Descrizione fisica | 1 online resource (473 pages) |
| Collana | Biology of Extracellular Matrix, , 2191-1959 ; ; 13 |
| Disciplina | 572.68 |
| Soggetti | Cell adhesion<br>Cytology<br>Proteins<br>Cell Adhesion<br>Cell Biology<br>Protein Biochemistry |
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| Nota di bibliografia | Includes bibliographical references. |
| Nota di contenuto | Part 1: Knockouts and animal models -- Integrins 11 and 21 – The generalist collagen receptors -- Roles for Integrin 31 in Development and Disease -- Part 2: Fibrosis& Cancer -- Integrins: Key targets in tissue fibrosis and tumor stroma -- Integrins in Cardiac Form, Function and Disease -- Integrin 8 and its ligand nephronectin in health and disease -- v integrin-dependent TGF activation in cancer: a brief update -- Part 3: Human disease -- a11b1, a mesenchymal collagen-binding integrin with a central role in tissue- and tumor fibrosis -- Integrins in pathological tissue remodelling of joints -- 4 integrins in immune homeostasis and disease -- 2-integrins in immunity: new roles for old players -- Structure and function of the leukocyte integrin M2 -- Part 4: Integrins in hemostasis, and immune control -- Platelet integrins: Critical mediators of haemostasis and pathological thrombus formation -- Integrins as receptors for bacterial and viral pathogens. |
| Sommario/riassunto | Integrins are heterodimeric cell surface receptors which anchor cells to different extracellular matrix proteins or act as cell-cell receptors. They |

play pivotal roles not only across a wide range of physiological processes including tissue morphogenesis, wound healing, and regulation of cell growth, but also in numerous pathological conditions such as autoimmunity, infectious disease, and carcinogenesis. This book aims to provide readers a summary of the most important integrins and their respective biological functions. Readers will learn about knockout- and animal models to study the functionality of key collagen-, laminin-, and nephronectin-binding integrins. Additionally, the role of integrins in pathological tissue remodeling in joints and in developing and diseased cardiac tissue are discussed. Reviews of the current knowledge of the role of integrins in tissue and tumor fibrosis, angiogenesis and tumor progression are an important part of this work. Finally, the book discusses integrins in the context of the immune system, how to target integrin-ligand interactions with antibodies, and the role of integrins as receptors for bacterial and viral cell invasion. Both experienced researchers and clinicians, as well as PhD students who wish to study the extracellular matrix and cell adhesion molecules will find “Integrins in Health and Disease - Key Effectors of Cell-Matrix and Cell-Cell Interactions” authoritative, easily accessible, and vastly informative. The series Biology of Extracellular Matrix is published in collaboration with the American Society for Matrix Biology and the International Society for Matrix Biology.